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- (71) Applicant (*for all designated States except US*): **BASELL POLYOLEFINE GMBH** [DE/DE]; Brühler Strasse 60, 50389 Wesseling (DE).
- (72) Inventor; and
- (75) Inventor/Applicant (*for US only*): **MIHAN, Shahram** [IR/DE]; Rossinistr. 12, 67061 Ludwigshafen (DE).
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(54) Title: MONOCYCLOPENTADIENYL COMPLEXES

(57) Abstract: Monocyclopentadienyl complexes in which the cyclopentadienyl system bears at least one uncharged donor bound via a boron-containing bridge and comprising one or more atoms of group 15 and/or 16 of the Periodic Table of the Elements and is bound to a metal selected from the group consisting of titanium in the oxidation state 3, vanadium, chromium, molybdenum and tungsten, a catalyst system comprising at least one of the monocyclopentadienyl complexes, the use of the catalyst system for the polymerization or copolymerization of olefins and a process for preparing polyolefins by polymerization or copolymerization of olefins in the presence of the catalyst system and polymers obtainable in this way.

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